County Borough of Reading

ANNUAL REPORT

OF THE

Principal School Medical Officer

FOR THE YEAR

1960

By

E. HUGHES, M.D., D.P.H., D.P.A.

County Borough of Reading

Medical Officer of Health's Dept.,
Bristol & West House,
173/174 Friar Street,
Reading

With the Compliments
of the
Medical Officer of Health & School Medical Officer

COUNTY BOROUGH OF READING

ANNUAL REPORT

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READING EDUCATION COMMITTEE

(as at 31st December, 1960)

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Mr. V. F. CARTER
Mr. W. C. COSTIN, O.B.E.
Mr. F. PHILLIPS
Mrs. H. D. KAY
Miss D. M. MILES

STAFF AT 31st DECEMBER, 1960

Principal School Medical Officer:

E. HUGHES, M.D., D.P.H.

Deputy Principal School Medical Officer:

P. K. SYLVESTER, M.B., B.S., D.P.H., D.C.H., D.(Obst.)R.C.O.G.

Senior Assistant Medical Officer:

H. I. LOCKETT, M.B., B.S., D.(Obst.)R.C.O.G., D.P.H.

School Medical Officers:

VIOLET FRASER, M.B., B.S., M.R.C.S., L.R.C.P.
ETHEL AMY FISHER, M.Sc., M.B., B.Ch., D.(Obst.)R.C.O.G.
A. MARTIN, M.B., Ch.B., D.P.H.
I. F. RALPH, M.B., Ch.B., D.P.H.
G. B. GASSON, M.A., M.B., L.R.C.P., M.R.C.S., D.(Obst.)R.C.O.G.
(Commenced and seconded to D. P. H. COURSE, 1/10/60)

Principal Dental Officer:

J. CAMPBELL, L.D.S., R.C.S.(Ed.)

Superintendent Health Visitor and School Nurse:

Miss M. WEBBER, S.R.N., S.C.M., H.V.

Group Advisor:

Miss J. N. MARSH, S.R.N., S.C.M., H.V.

School Nurses:

*Mrs. A. ALLISON
*Mrs. K. DULBOROUGH (Part-time)
*Miss E. FEW
*Miss F. GATES
*Miss M. E. GRANT
*Mrs. J. GRIFFIN (Part-time)
*Miss S. C. HANSFORD
*Miss B. HEATHCOTE
Mrs. H. KING
Mrs. J. LEWIS (Part-time)
Mrs. E. MABEY
*Miss H. MORTIMER
Miss M. A. PLATT
Mrs. J. PORTER (Part-time)
*Miss J. SMITH
*Miss B. H. WHITE
*Miss M. J. M. WILLIAMSON

*Combined Health Visiting and School Nursing Duties

Speech Therapists:

ANN ELSBURY, L.C.S.T. (Senior) (Part-time)
DOROTHY THOMAS, L.C.S.T.
MARGOT LAWRENCE, L.C.S.T. (Part-time)

Oral Hygienist:

Mrs. V. TAYLOR

Physiotherapist:

Mrs. M. ANTSCHERL, M.C.S.P., M.R.S.H.

Clinic Assistants:

Mrs. D. BOXALL Miss B. J. McMANUS Mrs. R. NEALE

Senior Clerk:

Mr. N. MASKELL

READING SCHOOL HEALTH SERVICE

To the Chairman and Members of the Education Committee

Ladies and Gentlemen,

I have the honour to present to you my report for the year ended December 31st, 1960. The body of the report contains a great many comments on the various aspects of our work and I hope that members will find time to read them.

In my introduction to last year's report I referred especially to two matters which are still relevant, viz., the shortage of dentists in the School Health Service and the unsatisfactory accommodation for medical inspections even in our new schools.

One of the subjects which has been discussed a great deal in recent years is the frequency of school medical examinations. For this reason I have described in some detail the arrangements which we have in Reading for periodic and special examinations of school children. Our plan has always been to try to arrange things so that a doctor is either in a school at a known period each week or in some premises near to a school where children can be referred to him/her. It is only in this way that the School Health Service can maintain close contact with schools and ensure that School Medical Officers shall, so far as practicable, become a part of the school and not just someone whose visits must be tolerated. This, of course, is only possible because of the continued good relationships which exists between the head teachers and staff of the School Health Department and I must express my gratitude to teachers for their continued goodwill.

Dr. H. I. Lockett, Senior Assistant Medical Officer, has been responsible for the preparation and collation of this report and I am indebted to him for his help.

Once again it is my very great pleasure to express my thanks to Mr. Taylor for his continued support and personal interest in the work of the School Health Department.

To my own staff also I must express appreciation of the hard work they have done during the year. It has been a busy time because of the calls upon their time for such subjects as immunisation but they have carried on cheerfully in spite of it all.

Finally, I would like to thank the Chairman and Members of the Welfare Sub-Committee of the Education Committee for the interest and support which they have given to this department throughout the year.

I am,

Your obedient Servant,

E. HUGHES,

Principal School Medical Officer

ESTIMATE OF THE NUMBERS OF CHILDREN BETWEEN THE AGES OF 5 AND 15 YEARS IN EACH OF THE NEXT FIVE YEARS

	Between 14 & 15	13 & 14	12 & 13	11 & 12	10 & 11	9 & 10	8 & 9	7 & 8	6 & 7	5 & 6	Total	Increase	Decrease	Cumulative incr. or decr.
31st Aug., 1960	1,750	2,138	1,929	1,841	1,712	1,653	1,693	1,647	1,597	1,636	17,596	—	—	—
31st Aug., 1961	2,138	1,929	1,841	1,712	1,653	1,693	1,647	1,597	1,636	1,627	17,473	—	123	—123
31st Aug., 1962	1,929	1,841	1,712	1,653	1,693	1,647	1,597	1,636	1,627	1,737	17,072	—	401	—524
31st Aug., 1963	1,841	1,712	1,653	1,693	1,647	1,597	1,636	1,627	1,737	1,706	16,849	—	223	—747
31st Aug., 1964	1,712	1,653	1,693	1,647	1,597	1,636	1,627	1,737	1,706	1,814	16,822	—	27	—774
31st Aug., 1965	1,653	1,693	1,647	1,597	1,636	1,627	1,737	1,706	1,814	1,886	16,996	174	—	—600

SCHOOL CLINICS

Queen's Road Clinic

Special Examinations and Minor Ailments	Monday and Friday, 9 a.m.–10 a.m.
Ultra-Violet Light Therapy	Tuesday, 2.30 p.m., Friday, 10.30 a.m.
Chiropody Clinic	Friday, 10.30 a.m.

Whitley Clinic

Special Examinations and Minor Ailments	Monday and Friday, 9 a.m.–10 a.m.
Ultra-Violet Light Therapy	Monday and Wednesday, 11.30 a.m.

Ashmead School Clinic

Special Examinations and Minor Ailments	Friday, 2 p.m.–3 p.m.

Emmer Green School Clinic

Special Examinations and Minor Ailments	Friday, 9 a.m.–10 a.m.

Geoffrey Field School Clinic

Special Examinations and Minor Ailments	Wednesday, 9 a.m.–10 a.m.

Grovelands School Clinic

Special Examinations and Minor Ailments (for Battle S. School)	Monday, 9 a.m.–10 a.m.
Special Examinations and Minor Ailments (for Battle S. School)	Friday, 9 a.m.–10 a.m.

Hill School Clinic

Special Examinations and Minor Ailments	Wednesday, 9 a.m.–10 a.m.

Hugh Faringdon School Clinic

Special Examinations and Minor Ailments	Thursday, 9 a.m.–10 a.m.

Kendrick School Clinic

Special Examinations and Minor Ailments	Wednesday, 9 a.m.–10 a.m.

St. Michael's School Clinic

Special Examinations and Minor Ailments	Wednesday, 9 a.m.–10 a.m.

Southcote Primary School Clinic

Special Examinations and Minor Ailments	Tuesday, 9 a.m.–10 a.m.

Stoneham School Clinic

Special Examinations and Minor Ailments	Tuesday, 9 a.m.–10 a.m.

Tilehurst Clinic

Special Examinations	By appointment
Ultra-Violet Light Therapy	

Westwood School Clinic

Special Examinations and Minor Ailments	Monday, 9 a.m.–10 a.m.

Dental Clinics

Queen's Road Clinic
Tilehurst Clinic
Whitley Clinic

Speech Therapy Clinics

Ashmead School	1 Session	The Hill School	1 Session
Avenue School	4 ,,	Queen's Road Clinic	8 ,,
Emmer Green School	1 ,,	St. Michael's School	1 ,,
E.P. Collier School	1 ,,	Southcote School	2 ,,
Geoffrey Field School	3 ,,	Tilehurst Clinic	1 ,,
Grovelands School	2 ,,	Whitley Clinic	2 ,,

MEDICAL INSPECTIONS

During the year the School Medical Officers were responsible for the examination of 6,459 pupils at periodic medical inspections, an increase of 10 per cent over last year's figures. In addition, 1,680 children were reinspected, or were seen at special inspections at the request of the parents, school nurse or teacher.

It is our policy to employ medical officers on a wide range of duties rather than to have individuals specialising in school health work. Thus, the medical staff during the year was equivalent to only 2.9 full-time doctors employed in school health duties. This gives a figure of 1.5 medical officers per 10,000 school children. The corresponding figure for England and Wales as a whole is about 1.4, so that our medical staffing, with respect to the School Health Service, is very close to the national average and less generous than in some areas.

We employ the equivalent of 8 full-time school nurses, i.e. approximately 4.2 per 10,000 school children; again this figure is exceeded by many local authorities.

The Senior Assistant Medical Officer is responsible in the main for the day to day administration of those departmental services which affect children. These include the School Health Service, the Infant Welfare Clinic service, B.C.G. vaccination, Immunisation and Vaccination and responsibility for the Register of Handicapped Children under 5. In addition to their work as school medical officers, all the Assistant Medical Officers work in Infant Welfare and Immunisation clinics and are given opportunities for experience in other aspects of the work of the Public Health Department.

Of the 19,000 children in the borough schools each of the Assistant Medical Officers is responsible for about 4,000, the Deputy P.S.M.O. deals with Reading School, and the Senior Assistant Medical Officer is directly responsible for the remainder. The Assistant Medical Officer at an infant welfare clinic is responsible, as far as possible, for the infant and junior schools around the clinic. This ensures to some extent that there is continuity of care and it also enables the clinic premises to be used for the medical examination of school children where facilities in the schools are inadequate. In the more modern schools, with minor ailment and medical inspection facilities available on the premises, the work can be carried out in the schools and we have experimented with the idea of following each weekly minor ailment clinic with a small number of routine medical inspections, thus spreading the routine work over the term and avoiding too much disturbance of school life. This procedure also ensures frequent close contact between the school doctor and the staff at the school and it seems to have many advantages over the visit once a term.

One disadvantage with the medical facilities, in even our newest schools, has been the lack of a suitable waiting place for parents and also of a suitable room for the nurse to interview the parents and to test vision, etc., prior to the child being seen in the medical inspection room by the doctor.

The routine, or periodic, examinations are normally made three times in the school life of each child, at 5, 11 and 14 years respectively. To a limited extent we have also provided an additional routine examination at the age of 8 years and it is hoped to make this general when our fifth Assistant Medical Officer joins us on obtaining his D.P.H.

It is from such inspections that we are able to detect defects, to observe them and to arrange for appropriate treatment or corrective measures. It may be necessary for the child to be referred back to his family doctor for treatment or to the appropriate hospital specialist. With the excellent co-operation existing with the general practitioners of the town, arrangements are made for them to be informed concerning their patient at all stages.

Nowadays, I think it is true to say that gross undetected or untreated disease is rarely found at routine inspections of school children, and cannot be regarded as the prime justification for the service. However, the detection of even relatively minor defects of the special senses of sight and hearing is vitally important as without recognition and correction of these, a child will not benefit fully from the education provided in school, and may well become retarded, or develop a behaviour disorder in compensation for his academic failings.

The routine school medical examination provides an important opportunity for health education and for dispelling the frequent false beliefs and fears of parents about health matters. It is, therefore, important that a parent should be encouraged to attend whenever possible, particularly at the initial and intermediate age-group examinations. At these examinations the opportunity is taken to discuss the immunisation state of the child and to arrange appropriate booster injections, particularly against diphtheria.

The routine examination also provides an opportunity for the teachers to raise matters concerning the health of a child and for them to be informed of findings where these are relevant. They are in an excellent position to comment on the health of a school child and a close liaison between school doctor and head teacher is essential if the maximum benefit is to be derived from the service.

In recent years some authorities have experimented with a selective examination as an alternative to the intermediate school medical examination as suggested in the School Health Service Regulations, 1959. We have not favoured this approach and in fact, as mentioned above, we are considering the introduction of a fourth medical examination at the age of 8 years to give more complete cover throughout school life. Our experience suggests that the staff of different schools vary very considerably in their personal attitudes to health matters and that if reliance was placed on schools for the selection of children for examination, some would bring forward very few children with minor defects, whereas others would see defects and health problems almost universally. However, we have, as described above, experimented with the practice of doing a few routine medical inspections each week after the minor ailments clinic in some of the newer schools which possess suitable medical rooms, and the closer and more frequent contacts between school doctor and school have undoubtedly proved very beneficial. There is also no doubt from their comments that many parents greatly appreciate the routine health examination, perhaps more so when they believe that their child is generally healthy, but seek reassurance on minor deviations from the average in physique or behaviour.

It is worth mentioning that the third examination, commonly termed the "school leaver's examination", is, in fact, an examination for fitness for entry into industry and has, therefore, a peculiar importance of its own. Where handicaps are present which may affect placing in employment, the Youth Employment Officer is informed and advised. In this way the child may be saved the frustration of taking the initial steps to enter a career for which he may prove quite unsuited owing to health limitations. An interesting example is the advice given to colour blind pupils after careful assessment, including tests with the Edridge Green and Giles Archer colour perception lanterns, of the degree and true practical significance of their defect.

In addition to the routine medical inspections at 5, 11 and 14 years and the special examinations made by the school doctors at any time at the request of parents, teachers, school nurses or school welfare officers, there are the reinspections of pupils under treatment or observation for various defects, and the twice yearly examination of all pupils in nursery schools. The importance of minor defects of sight and hearing

has been stressed previously and there are additional arrangements for the more frequent assessment of these special senses.

It has been our practice for the school nurses to conduct an "eye sweep" in primary schools for pupils at the ages of 6 and 7 years and for those found to have substandard visual acuity an opportunity is given to attend the special children's eye clinic held at the Royal Berkshire Hospital by Mr. Cashell. The eye sweeps are now being extended to give a more complete cover throughout school life. In future surveys of vision will be made at 7, 8, 9 and 13 years, in addition to the tests made as part of the routine school medical inspections at 5, 11 and 14 years.

With regard to hearing, annual sweep tests are made by an audiometrician on children in infants' departments at the ages of 5, 6 and 7 years. A portable transistorised pure-tone audiometer is used for the tests in school and the sweep test is made initially at 20 d.b. intensity (American standardisation). Any child failing this test in either ear at any one of the five frequencies used has a full audiogram made at school wherever conditions are favourable. The child is then referred to the appropriate school medical officer who makes arrangements to see him for a more detailed assessment and for referral to Mr. Hunt Williams special school children's hearing clinic at the Royal Berkshire Hospital if necessary. Statistics relating to this work are found in the section of this report dealing with handicapped children and it will be seen that approximately 10 per cent of children fail the sweep test in school and of these failures about a quarter are found not to have any significant abnormality when examined by the school medical officers.

Of the 6,459 pupils seen during the year at routine examinations, the general physical condition was recorded as satisfactory in 99.9 per cent, compared with 99.8 per cent in 1959. At these inspections 883, or 13.7 per cent, of pupils were found to require treatment for some disease or defect; in 326 (i.e. 5 per cent) the defect concerned was poor sight.

It is interesting to compare the incidence of various types of defects requiring treatment or observation discovered during the examinations in 1960 with the corresponding incidence found at routine medical examinations 8 years ago.

Number of children per 1,000 *examined in* 1952 *and in* 1960 *who were found to have certain defects requiring observation or treatment*

Defect	1952	1960
Skin defects	22	22
Visual defects	61	89
Squint	15	17
Deafness	9	21
Otitis media	17	13
Nose and throat defects	104	42
Speech defects	7	14
Defects of lymphatic glands	21	2
Heart defects	11	7
Lung defects	27	21
Hernia	2	3
Postural defects	22	7
Foot defects	62	19
Epilepsy	0.2	3
Disorders of psychological development	3	29
Psychological instability	6	11

The appreciable increases recorded for the incidence of visual defects, deafness and speech defects probably reflect our increased awareness of the educational importance of these handicaps. The marked diminution in the incidence of defects of the nose and throat, of lymphatic glands, postural and foot defects probably represents in large measure increased discrimination in the recording of minor deviations from

the normal. In this respect the suggestions made in the recent memorandum on school medical inspections published by the Society of Medical Officers of Health have probably not been without influence. Its recommendations are undoubtedly responsible for the relatively large increase in the recorded incidence of disorders of psychological development (which includes E.S.N.), the corresponding figure for 1959 being only 9 per 1,000.

As mentioned in last year's report it has been decided to keep a special register of children suffering from each of the four conditions, asthma, epilepsy, heart disease and obesity, in order to supplement the information noted in the medical records during the routine examinations. The numbers of children suffering from these defects recorded at routine medical inspections do not enable us to estimate the number of cases of any particular condition in the school population at any given time. Such a register will in time offer us a more complete picture in respect of these four conditions.

Asthma

In all, 128 children were noted to suffer from asthma. One of these is at a residential school, one attends the Avenue School and another has been having home teaching. The remainder attend ordinary schools; the attacks of asthma were noted to be very mild or infrequent in many of these.

Epilepsy

There are under observation 36 pupils who are known to have had epileptic seizures. In 17 of these the attacks have taken the form of *grand mal* ; the others suffered from *petit mal* or minor epilepsy.

In many of these children the attacks have been mild and infrequent or readily controlled by anticonvulsant drugs and they have been able, with the generous co-operation of their teachers, to continue their education in ordinary schools. Seven more severely affected children attend the Avenue Special School where the careful supervision possible in a school of this type has been helpful in curtailing the frequency and severity of the seizures. Six of the children are so severely affected by their epilepsy that it is necessary for their education to take place in a residential school. One epileptic child has been having home teaching during the year.

Heart conditions

Twenty-eight children were noted to have some abnormality of the heart. One attends the Avenue School and one is receiving home teaching; the remainder are not incapacitated to a serious extent and they attend ordinary schools.

Analysis of the diagnoses shows that 8 have various forms of Congenital Heart Disease, 4 have Rheumatic Heart Disease and the others have systolic murmurs or slight abnormalities of pulse rhythm which are probably not significant of disease but which require observation. Of the 8 cases of Congenital Heart Disease, 3 were noted to have had cardiac surgery.

Obesity

There were 97 children who were, in the opinion of the school medical officers, so overweight as to require special observation and treatment. Three of these attended the Avenue School and the rest are in ordinary schools.

Medical examinations for fitness for employment

During the year 702 children, 486 boys and 216 girls, were medically examined by the school doctors for suitability for part-time employment under the Children and Young Persons Act, 1933. One boy and two girls were found to be unfit for employment on medical grounds and, in addition, two boys and one girl were found unfit at the first examination, but were passed fit when the position was reviewed at a later date.

HANDICAPPED CHILDREN

These are children who because of some disability of mind or body require special methods of education, either in separate or special schools or in ordinary schools if this is possible. The authority is required to ascertain the children in their area who need such special educational treatment and the comprehensive Register of all handicapped and potentially handicapped children from birth onwards which has now been built up in the Health Department (see Annual Report of the M.O.H. for 1960) will undoubtedly greatly facilitate this work.

Apart from this matter of ascertainment, the most important duty of the School Medical Officer in connection with these children is that of ensuring that they obtain, and benefit to the maximum possible extent from, appropriate medical and surgical treatment to help overcome the handicap and to minimise its adverse effects on their educational progress.

The ten categories of children to be considered have been defined in the School Health Service and Handicapped Pupils Regulations, 1953.

(*a*) Blind Pupils

Pupils who have no sight or whose sight is, or is likely to become, so defective that they require education by methods not involving the use of sight. There is one child of school age on the register. It is a girl of 9 who is resident at Sunshine Home, Leamington Spa. One boy left school during the year on attaining the age of 16.

(*b*) Partially-sighted Pupils

Pupils who by reason of defective vision cannot follow the normal regime of ordinary school without detriment to their sight, or to their educational development, but can be educated by special methods involving the use of sight. The special methods may include the use of optical aids such as a large magnifying lens, good diffuse lighting and specially printed books. There are 12 children on the register, 7 boys and 5 girls. The girls are all resident at Barclay School, Sunninghill. Three boys are at the Brighton school for partially-sighted pupils and another is at Exhall Grange, Coventry. A 4 year old boy attends Nursery School and another 5 year old is at present having home teaching. One other boy left residential school during the year on attaining the age of 16.

(*c*) Deaf and Partially-deaf Children

Detection Schemes

References will be found in my report as M.O.H. of the Borough to the scheme we have evolved for the detection of deafness in early infancy. We continue to be indebted to Dr. K. P. Murphy of the Nuffield Audiology Unit, Royal Berkshire Hospital for his considerable help and interest in this work. Our scheme for the detection of deafness in the older pre-school child has been described in previous reports and it continues more or less unchanged. Under this scheme Health Visitors and School Welfare Officers pose the following questions to parents when they visit them:

1. Is your child talking in sentences?
2. Can you understand everything he says?
3. Does he always understand what you say to him?
4. Does he always answer when called?
5. Have you noticed any apparent defect in his speech?
6. Do you think he has any difficulty in hearing?

In addition, all nursery schools and classes are visited by teachers of the deaf who screen all children with any communication difficulties.

AUDIOMETRY

TESTING COLOUR VISION

The following table gives the results of this detection procedure during 1960:

Source of Referral	Total number of children referred	Number found to have defective hearing
Health Visitors . . .	36	5
Other (S.W.O.'s, Nursery schools, S.M.O.'s, etc.) .	25	3
Total	61	8

In addition, 30 children from 18 families having a significant family history of deafness were re-examined by teachers of the deaf and found to have normal hearing. This check willl be made annually until they reach the age of 5 years.

Sweep Tests in Infant Departments

These have been described in the section of this report dealing with medical inspections. The following table gives the results of these tests during 1960:

CHILDREN TESTED

	No. tested	*No. failing*	*Percentage failing sweep test*
Entrants (5 years old) . .	1,180 boys 975 girls	116 boys 106 girls	
	2,155 total	222 total	10.3
Retests (6 and 7 years old) .	717 boys 578 girls	58 boys 46 girls	
	1,295 total	104 total	8.04
Total	3,450	326	9.5

DISPOSAL

	Entrants 5 years old	*Retests 6 and 7 yrs. old*	*Total*
(1) No significant abnormality found on further examination	37	25	62
(2) Treated and kept under observation by S.M.O. . .	71	17	88
(3) Referred to G.P. . .	5	2	7
(4) Referred to E.N.T. Dept. at Royal Berkshire Hospital .	46	27	73
(5) Awaiting examination by S.M.O. (includes non-attenders)	63	33	96

A follow-up study is being made of the children who failed the initial audiometric sweep test in infant schools during the years 1957, 1958 and 1959.

This shows that a total of 470 children failed the test and of these 213, that is 45 per cent, were referred to the E.N.T. Dept. of the Royal Berkshire Hospital. When these children were seen by the otologist they received appropriate treatments as follows:

129 had their tonsils and adenoids removed;
8 had their adenoids only removed;
30 had other treatments;
only 47 required no treatment

Our records suggest that the hearing had subsequently returned to within normal limits in a high proportion of the children receiving treatment. Thus, of the 129 children who had their tonsils and adenoids removed, the hearing returned to normal in 92, or 71 per cent. Of the 8 children who had adenoids alone removed, the hearing returned to normal in 6, or 75 per cent. Of the 30 who received other methods of treatment (antral washout; removal of wax; X-ray treatment; myringotomy, etc.) the hearing was found to be normal on retesting later in 21, or 70 per cent.

However, it should be noted that of the 257 children who failed the initial sweep test in school but were considered by the school medical officers not to justify referral to the otologist, 56 or 22 per cent failed a later sweep test and have subsequently been seen again by the doctors for reassessment.

The figures given above appear to suggest that operative treatments do have a favourable effect on hearing in a high percentage of hard-of-hearing children of the type detected by audiometric sweep testing in infants schools, but a more detailed analysis of the results with quantitative consideration of the degrees of hearing loss and of improvement is really necessary in order to reach a firm conclusion on this point. Such an analysis is being made with the kind co-operation of Mr. Hunt Williams of the Royal Berkshire Hospital.

Progress of partially deaf and deaf School Children

Mr. Daniel Ling reports as follows:

Home Training of pre-school children

Four pre-school children received home training through parent guidance from a specialist teacher of the deaf. One of these children, a boy aged under two years whose parents are both deaf and dumb was given specific mention in last year's report. One of the remaining three children, a girl, is also a Reading child. The two other children, both boys, moved to the borough (a) from Bath at 4 years of age and (b) from Kent at 2½ years of age.

The New Town Nursery/Infant Class

Six children, four boys and two girls, now attend the nursery/infant unit. Only one child, a girl, is a new admission. This child was brought by her parents from Derbyshire in July. Two former girl pupils moved during the year to the George Palmer Junior Unit and two more girls were transferred to the Junior Department of New Town School, where they receive periodic attention from a specialist teacher. The teacher who took charge of the class from its inception in 1957 resigned for domestic reasons and Miss P. Webber was appointed in her place from September.

The George Palmer Junior Unit

Eight children, five boys and three girls, at present attend this unit. Two boys and two girls are new admissions, the latter, as mentioned above, being transferred from the Nursery Infant Unit in September. Of the two boys, both admitted in September, one with marked athetosis aged 8 years came from a residential school; the other a partially deaf child aged 7 years had formerly received part-time attention in an infants' school in the Borough after moving from Oxford. One boy, aged ten years, was transferred to a normal class within the George Palmer Junior School and a further boy, mentioned in last year's report, was transferred to a boarding special school.

Part-time help for ex-unit and other children with hearing aids

All seventeen children who were formerly pupils in the units are seen regularly by a specialist teacher of the deaf for follow up and/or supervision. Nine of the seven-

teen pupils are now in secondary schools (three in Grammar or Selective streams and six in Modern streams). The remaining eight children are in Junior schools. A further 25 children with hearing aids who attend normal classes also receive supervision from a specialist teacher each term.

Hearing aids in use December 31st, 1960

	Commercial	*Medresco*	*Total*
Issued in former years . .	26	24	50
Issued during 1960 . . .	4	8	12
Total	30	32	62

Ten children who had formerly been issued with commercial aids required commercial aids of a new type and these were supplied. Two further individual high fidelity speech training units for use with particular children were also purchased.

Causes of deafness among children wearing aids

1. Familial	12
2. Maternal Rubella	2
3. Haemolytic disease	7
4. Anoxia	1
5. Birth Injury	2
6. Virus Infection in early infancy	4
7. Meningitis	1
8. Middle ear infection	17
9. No known cause (perceptive)	16
Total	62

Number of children in addition to the above who require a favourable position in class.

Boys	92
Girls	86
Total	178

Children at residential special schools

At present three children are on the deaf register: one attends Donnington Lodge Nursery School, Newbury, another attends St. Thomas' School for the Deaf, Basingstoke and the other is receiving treatment locally for bronchiectasis. In addition, two partially deaf girls of secondary age remain at boarding school in Brighton.

(*d*) Educationally Subnormal Pupils

Pupils who by reason of limited ability or other conditions resulting in educational retardation require some specialised form of education wholly or partly in substitution for the education given in ordinary schools. At the end of the year there were 152 pupils classified as Educationally Subnormal, 98 boys and 54 girls. Only 3 of these were at residential special schools, and one boy was on the waiting list for such placement.

During the year 29 children suspected of being educationally subnormal or in serious educational difficulty were examined by the "approved" Medical Officers. In each case the examination consisted of an intelligence test, at least one performance test, and a medical examination. The following list gives the results of the assessments of these children:–

	Boys	*Girls*
Recommended for day special school . .	6	8
Recommended for residential special school	–	1
Recommended for remedial teaching at ordinary school	4	2
Reported to the L.H.A. under section 57 of the Education Act		
(i) as being ineducable. . . .	3	–
(ii) as requiring supervision after leaving school	4	1

During the year important changes came into force as a result of the Mental Health Act, 1959. One of these changes concerns the procedure when a child leaves the E.S.N. Department of the Avenue School. Hitherto certain children have been reported to the Local Health Authority under Section 57 of the Education Act as requiring supervision after leaving school. Such a decision by the committee has been based upon a careful consideration of evidence, including a mental examination by one of the "approved" medical officers. This power has now been cancelled but arrangements are being made for one of the Mental Welfare Officers to get into touch with the parents of all leavers from the E.S.N. Dept. of the Avenue School and to offer their help. So far as possible, parents will be seen before the child leaves school and in the company of the Youth Employment Officer. The result of a recent detailed examination by one of the "approved" school medical officers, including a mental test result will be made available for consideration. The parent is, of course, quite free to reject any such offer of help and it remains to be seen whether this new scheme of after-care will operate as well as the old scheme of statutory supervision.

(*e*) Epileptic Pupils

Pupils who by reason of epilepsy cannot be educated under the normal regime of ordinary schools without detriment to themselves or other people. A note on these pupils has been given above in the section on medical inspections.

(*f*) Maladjusted Pupils

Pupils who show evidence of emotional instability or psychological disturbance and require special educational treatment in order to effect their personal, social or educational readjustment.

During the year some informal discussions took place with officers of the Oxford Regional Hospital Board about future arrangements for child psychiatry. My own feeling is that the present arrangements for child psychiatry are not in conformity with modern medical views on this subject and do not take cognisance of recent advances in practice. A few years ago the subject of Child Guidance Clinics was studied by the Underwood Committee who, in broad terms, recommended the mixture as before but more of it. I am one of those who feel that this was an unfortunate recommendation and that the Committee was catering for the past rather than looking to the future. It is difficult enough to get well qualified and experienced doctors to take up psychiatry but it is almost impossible to persuade them to take up child psychiatry under present arrangements in child guidance clinics where their practice may be limited to children and is not supported by hospital beds. It is hoped that when the reconstruction of the Royal Berkshire Hospital takes place there will be better provision for child psychiatry and that the school psychological service will function as an entity in

its own right; at the moment it seems to consist entirely of the Educational Psychologist, with very little contact with school medical officers. I hope also that if present intentions are executed the local authority arrangements for maladjusted children will dovetail with its arrangements under the Mental Health Act. At the moment the Child Guidance Clinic plays no part at all in the mental health services of the borough under the Mental Health Act.

The report of Dr. M. E. Ward, Psychiatrist, Reading Child Guidance Clinic, reads:–

There has been an increase in the total number of referrals during the year, there is a significant increase is the number of referrals both from family doctors and from school medical officers. The psychiatric social worker's visits have been nearly doubled. This is the first year when the Reading Child Guidance Service has had a full-time psychiatric social worker and educational psychologist for the whole year. Mr. Newham as educational psychologist, works mainly in the School Psychological Service, and is available for a minimum of two sessions weekly at the clinic. Waiting lists, both for diagnostic interview and treatment, have been kept within reasonable limits, most children are seen within 4–6 weeks of referral. A close liaison is maintained with the Hospital Child Psychiatric Clinic, and many Reading children seen for consultation at the Hospital Clinic are taken on for treatment at the Child Guidance Clinic.

On the preventive side, informal discussions have been held between the psychiatrist, health visitors and mental welfare officers at the School Clinic, and a demonstration and talk on psychotic children was given at the Child Guidance Clinic.

All children seen at Reading Borough Clinic, January 1st, 1960—December 31st, 1960.

No. of cases brought forward from 31.12.59	155
No. of new cases referred	87
No. of cases re-opened during the period	12
Total number of cases seen for Consultation and Treatment	169
No. of Cases Closed	59
After Consultation and Advice only	17
Adjusted	1
Improved	25
No change	6
Prematurely closed	5
Not seen	3
After Social Work Only	2
No. of interviews:–	
For Psychiatric Examination	77
For Intelligence Test	69
For Treatment	429
No. of P.S.W. and S.W. interviews	668
No. of children admitted to Hostels for Maladjusted Children	4
No. of children discharged from Hostels for Maladjusted Children	2
No. of children in Hostels on 31.12.60	7

Sources of Referral, Child Guidance Clinic cases, January 1st, 1960—December 31st, 1960

School Medical Officers	27
General Practitioners	33
Educational Psychologist	6
Court	4
Hospitals and other Psychiatric Clinics	14
Town Clerk (after consultation with M.O.H.)	3
	87

(*g*) Physically Handicapped Pupils

Pupils who by reason of disease or crippling defect cannot, without detriment to their health or educational development, be satisfactorily educated under the normal regime of ordinary schools. Only 5 children needed residential schooling. A further 60 pupils, 40 boys and 20 girls attend the appropriate department of the Avenue School or have received home teaching. These children suffer from a great variety of defects, many of which are congenital. The commonest abnormalities are cerebral palsy and congenital heart disease and many of the others have orthopaedic defects.

The children in the Physically Handicapped Department of the Avenue School have benefited greatly during the year from the attention of our full-time Physiotherapist and a detailed account of her work is given later in this report.

The Cerebral Palsy Unit

At the beginning of the year there were 7 pupils in this unit. Two brothers, both severely handicapped, left during the year for a period of assessment at the National Spastics Society Unit, Hawksworth Hall. After a thorough period of trial there with detailed assessments by an expert committee of the society, it was finally decided that both boys were unable to benefit from education in school and responsibility for them has subsequently been passed to the Local Health Authority. Three new pupils were admitted to the unit during the year bringing the total number of pupils to 8.

An important feature of the year's activities has been the appointment of a full-time physiotherapist at the school to work principally with the unit children. She has achieved quite formidable physical progress with the children and we owe much to her enthusiasm and devotion to them.

Mr. Squire has attended each term to interview the cases and to assess the need for any operative or manipulative measures, and these visits have been greatly appreciated. In addition, the Senior Assistant Medical Officer, who is responsible for the children in this unit, is able to attend Mr. Squire's Cerebral Palsy clinic at Battle Hospital which enables us, amongst other things, to form some idea of the future educational provision required in the Borough for this group of children. At present only 4 pre-school children in Reading appear to be possible candidates for this special unit when they are older. Many of the less severely affected spastic children are able to cope quite well in an ordinary school. One other spastic child of pre-school age attends the Junior Training Centre and another was on the waiting list at the end of the year.

(*h*) Pupils suffering from Speech Defects

Mrs. A. C. Elsbury, Senior Speech Therapist, reports:–

Two hundred and fifty-four children, 177 boys and 77 girls, attended the speech clinic during 1960.

139 cases of dyslalia
8 cases of dyslalia due to hearing loss
31 cases of retarded speech development
49 cases of stammering
8 cases of stammering plus dyslalia
9 cases of cerebral palsy
4 cases of cleft palate
6 cases of disordered vocal resonance
84 were discharged cured or greatly improved
8 were discharged for non-attendance
4 left school before treatment was completed
2 left the district before treatment was completed
158 continued into 1961

Clinics were held at the Queen's Road, Coronation Square, Tilehurst and Whitley Clinics and the Avenue, The Hill, Emmer Green, Caversham Primary, Coley, Southcote, St. Michael's, Grovelands, Geoffrey Field, Ashmead, E. P. Collier, George Palmer, Battle, Wilson schools and Wakefield Lodge training centre. Time was set aside for school and home visiting and interviews.

Since the majority of speech defects and disorders found in school children originate during the first years of life, I feel that it may be of interest to outline the normal development of speech and to show where and possibly why abnormalities may occur, and how many may be prevented.

There are approximately five basic stages in speech development, which may be listed as follows:–(a) The screaming period; (b) babbling; (c) infantile speech; (d) echo period; (e) developed speech pattern. It must be remembered that the term "normal" as far as speech development, or indeed most of the child's development is concerned, covers a wide age range. Therefore, although John may utter "da-da" at seven months and Billy may not do so until he is twelve months old, both would be within the limits of normality.

I should like to stress here that speech is a skill which has to be learned and therefore a certain amount of teaching by the parents is essential. It is true that a child who is in contact with other human beings will imitate sounds and words, but in order to produce intelligent and intelligible conversation he must receive direct stimulation.

The screaming period lasts from birth to between two and six months. The child is beginning to learn to talk as soon as he draws his first breath. Crying, smiling, sucking and swallowing all entail the repeated use of lip, tongue and jaw movements involved in the production of speech. Most of these movements and the sounds produced at this age are, of course, reflexive and are independent of parental stimulation. Crying consists of nasalised vowel sounds and as early as the third month the first consonantal sounds begin to appear in the form of grunting, gurgling and sighing. The first consonant sounds to be produced are usually "k", "l", "g" and "h".

Babbling, which consists of the reiteration of speech sounds, lasts from between two to six months to twelve to eighteen months. The child repeats syllables, such as "da-da", "ma-ma", "la-la" and generally plays with sounds. He gains pleasure from doing this and will spend much time listening to himself producing sounds and using variable tones and inflections. He is gradually learning to master the tongue and lip co-ordinations necessary to meaningful speech. The baby at this stage will respond to stimulation and will imitate. Parents should allow the child to amuse himself with his vocal play and not interrupt, and should also help by imitating the baby's own utterances and inflections as a means of stimulation. Babbling itself consists of two stages known as pre-linguistic and linguistic babbling. Pre-linguist babbling is merely experimenting with sounds and intonations during vocal play, and is often mistaken for the beginning of meaningful speech by over-fond parents. How often do we hear a mother say, "Baby called his father "da-da" today!" in reference to a six months old baby? It is only when the child consistently repeats the same syllable when confronted with a certain object that his babbling may be classed as linguistic. Usually he hesitates before naming the object or perons, in his own particular way, which gives a guide to the fact that he is making an association in his mind. This rarely happens before seven or eight months at the earliest, and usually appears between ten and fifteen months.

The period of infantile speech lasts from approximately 10–18 months to three years. At the beginning of this period the child learns to say his first true words. It is a time of rapid physical development when the child learns to walk, run and feed himself as well as to talk; as far as speech is concerned, this is really the most important stage. Comprehension develops rapidly together with the physical development and hearing is extremely important during this stage. The deaf child, if not diagnosed beforehand, remains at the pre-linguistic babbling stage, as he is unable to respond to aural stimulation and thus to develop comprehension.

Imitation is very prevalent during the stage of infantile speech, and sufficient but not excessive stimulation is essential here if the child is to develop speech within the "normal" age limits. The child very often combines gesture with his vocalisation

at this time. For instance, he will hold out his arms and say "Mummy" or reach for a doll and say "ba-ba". Parents often encourage a child to name something by holding it just out of his reach, and expecting him to stretch his hands towards it and repeat its name before handing it over.

As I have mentioned before, children vary greatly as far as the age of beginning to speak is concerned. They also differ in the way in which they speak. Some children, the majority in fact, begin with single words, whereas others start to talk in sentences. My own child never named any object without prefixing it by "Look at that!" The average 18 months old will have a vocabulary of roughly 20 words and may join one or two together. The sounds are usually faulty, but are apparent as words to the parents if to no one else for the time being!

As well as these few words the child will probably still babble to a certain extent and will use a good deal of what Speech Therapists describe as jargon. Jargon is an unintelligible jabber, which is nevertheless extremely important to speech development. It differs from babbling in its variety and purposiveness—the child appears to be talking to someone or something in particular, rather than just playing with sounds and there is a great variety of intonation used.

By the age of two years the average child should be using quite a few words and also joining words together, although the actual articulation is often faulty.

The echo period occurs during infantile speech between the ages of two and three years. It consists of the parrot-like echoing of words and the repetition of longer words picked out from conversation amongst older children or adults. These words are usually not understood by the child, but he repeats them as an experiment.

The fully developed speech pattern is completed between three and five years. The vocabulary continues to increase and baby words and faulty articulations gradually disappear. It is during this stage, however, that a stammer may manifest itself. Hesitation over words at this age is completely natural. Speech is an extremely complex skill and there are many co-ordinations to be mastered and perfected until they can be used at fast speeds and under conditions of excitement. The child tries to imitate his parents' fluency as well as their words and intonation, and for a three year old this is no easy task. He has neither the vocabulary nor the physical skills sufficiently well-developed to keep up with adult standards and therefore he tends to hesitate or stumble. It is the parents' responsibility to set a standard of slower speech and to give the child time to say what he wants, rather than speaking for him, if a stammer becomes evident. If treated in this way and not made evident to the child, a stammer will very often disappear by the time the speech pattern is fully developed.

Many of the children treated in the speech clinic have faulty sounds which have persisted since the stage of infantile speech. Very often, although by no means always, this may be due to faulty teaching by the parents. Similarly, retarded speech development may also be due to faulty teaching or lack of stimulation or even over-stimulation. We are unable to give the cause for every child's speech defect. In a few cases there is a physical cause, such as cerebral palsy or cleft palate, but with most children with dyslalia the underlying cause is often lost in the mists of speech development. There is evidence to show, however, that because of some parents' lack of knowledge many children (a) fail to practise sounds in vocal play; (b) do not imitate sounds; (c) do not learn that sounds can be meaningful and useful; (d) do not practise jargon; (e) resort to gesture rather than words and, therefore, lay the foundation for defective speech. Therefore as a help towards the prevention of speech defects it is important for parents to encourage vocal play, to stimulate sufficiently but not to over-stimulate and to help build up vocabulary by teaching new words suitable to the child's capabilities explaining them as far as possible. It is also helpful to correct faulty sounds taking one sound at a time and explaining what is expected of the child. It is useless for the parent to interrupt speech continually saying "Say 'cat', not 'tat' " or whatever the sound may be. This can do far more harm than good, but an occasional correction of a sound within the child's capabilities may prevent many visits to a speech therapist during a child's school life. If the child can be taught to correct himself the battle against faulty articulation is virtually won.

In summary, I should say that if parents could be helped to teach their children to talk in the correct way many, though by no means all, speech defects could be prevented.

(*i*) Delicate Pupils

Pupils who by reason of impaired physical condition need a change of environment, or cannot, without risk to their health or educational development, be educated under the normal regime of ordinary schools. Only one child in this category is at residential school while another is on the waiting list for such. A further 13, 9 boys and 4 girls, attend the appropriate department of the Avenue School.

Unfortunately those very pupils who from a strictly medical point of view would appear most likely to benefit from the regime of a suitable residential school are children who might well feel insecure through prolonged separation from their parents and I think it is true to say that many handicapped children are less able to tolerate the considerable strain involved in such "deprivation" from their home life than would normal healthy children of the same age. For this reason a recommendation for residential schooling is not made without very careful consideration of the type of home and the likely attitudes of both parents and child to such separation.

The Avenue Special School and Home Teaching for Handicapped Pupils

It may be of interest to describe the medical arrangements for the supervision of the health of the pupils in this school. The Senior Assistant Medical Officer is responsible directly for the E.S.N. boys and also for the Cerebral Palsy Unit, and another of the "approved" medical officers supervises the E.S.N. girls' department. These appointments involve quite a lot of mental testing (review examinations mainly), in addition to the routine medical care. The Physically Handicapped and the Delicate Departments each have their own school medical officer. All these departments are visited regularly and it is unusual for a week to pass without one or more of the medical officers visiting the school.

Mr. Ross reports as follows:–

Changes in the staff of the school are inevitable, and in normal circumstances such changes are met by a flow of recruits. Unfortunately this flow has been far from normal and in 1960 frequency of change was accentuated by temporary filling of vacancies.

Handicapped children lean on their teachers to a very great extent, and reliance is assisted by long acquaintanceship. We were, therefore, glad when the uncertainty of staffing was largely removed by the end of the year.

In the middle of the year, however, we welcomed the addition to the staff of a full-time physiotherapist. This permitted a considerable extension of remedial work, and while the spastic children occupy a large proportion of her day, children suffering from the effects of poliomyelitis and from congenital malformation are now included. The benefit too in post-operational treatment cannot be exaggerated, and then there are the children with chest infections whose recovery is often considerably accelerated with postural and breathing exercises. Foot therapy also has an important place and no fewer than 34 children from all the departments of the school are now included in the therapist's list for treatment.

There was a slight increase in the roll of the physically handicapped and delicate department during the year. Only three children left but ten were admitted. Three of these ten joined the small group of spastic children, but it is of some significance that the fairly rapid diminution in recent years in the number of physically handicapped children in the school seems to have been halted. At the end of the year sixty children were on the roll.

There was no difficulty in the placing of the three delicate children in first jobs which held future prospects, but a haemophiliac boy on leaving school in February, 1960, justified more than ordinary considerations. On leaving school he was admitted

to the Ministry of Labour assessment Centre at Egham but became ill and there followed periods of investigation and treatment in various hospitals which prevented any consideration of employment. Intensive home teaching was undertaken when he was not in hospital, and it was ultimately decided that he should pursue further education with a view to obtaining the General Certificate of Education, and if his health permitted that he be admitted to secondary school to study to certificate standard.

The roll of the sub-normal department remained round its usual maximum of 147. Twelve children left throughout the year and it is again to the credit of the diligent patience of the Youth Employment Officer that all but one of these children were found suitable employment. While it is too early to make any judgment on their long term settlement, the most recent reports indicate that all of them have settled successfully. The exception in the year was a rather unstable boy who necessitated continued training and of the two girls who left, one was of a most uncertain background and is likely to be somewhat erratic in those difficult first years after leaving school.

It is sometimes reasonable to emphasise the majority of successes since too frequently it is the solitary social failure who commands publicity. Yet, it is found too that the school has made a remarkably deep educational impression upon the wayward child. It is the overwhelming influence of a disturbed home that contributes so much to social failure. Although the proportion of children so affected may be small, there is perhaps a regret that the fashion by which the inadequate parent can be helped while the child is still at school is so limited.

Home Teaching

With the exception of a short period in midsummer the home teachers were kept fully occupied throughout the year. Here again there was a change of full-time teacher but perhaps the principal development was the almost continuous need for the presence of a teacher in the children's wards of Battle and the Royal Berkshire Hospitals. Our art mistress too had always a very happy group during her forenoons at each hospital and many of the children found great satisfaction in the completion of delightful objects started in their craft lessons. The younger ones had perhaps greater joy in painting and modelling and this further step in teaching in hospital had added a stimulating and happy activity to the formal lessons.

Children taught at home fall into two categories, those who are prevented from attending school during convalescence after accident or illness and those with a more permanent handicap which necessitates a long period of teaching at home, and may prevent the child ever attending school. For all children, the avoidance of long periods without mental stimulus and the importance of early home teaching cannot be too strongly stressed.

In many children, whose school careers have been interrupted by illness, the fear of failure due to missed schooling is a very real one. Indeed failure can follow if the child does not obtain the necessary individual attention when he returns to school. Home teaching with liaison between the child's teachers and the home teacher can prevent serious educational difficulties. Corrective measures can be taken before the child becomes lost in a maze of new work.

An eight year old boy on long convalescence after Schonlein-Henoch's purpura was deeply concerned by the ground he was losing. He was taught at home for one term and returned to school with great self confidence.

An extreme case of failure due to lack of early remedial teaching has been dealt with by a home teacher. A girl, now aged 16, missed through illness the ground work of several "new" subjects during her first year at secondary school. Poor performance in examinations inevitably followed and this sensitive and not very physically strong girl became obsessed by failure. Her condition was accentuated by parental anxiety. Illnesses followed until a complete break from school became necessary. After three months concentrated home teaching, a number of educational difficulties were

resolved but, more important, the girl's self-confidence developed. She returned to school and after one term has achieved a remarkable success in her examinations, and appears to have completely regained her self assurance.

How different the little boy whose precocity almost challenged the home teacher. He was not content with knowing how! He wanted to know why!

Or the girl, timid and restricted in experience, who actually felt that her long recuperation should be longer, so much was she enjoying practical education and individual help.

Throughout the year the following numbers of children received teaching in the wards and at home:—

In hospital			*At home*		
Boys	Girls	Total	Boys	Girls	Total
24	22	46	16	13	29

Physiotherapy in the Avenue School

We are indebted to Mrs. M. Antscherl for the following report: the views expressed are her own.

After 2 years of part-time physiotherapy, a full time department came into being in April 1960.

At that time 12 handicapped children in the school were receiving treatment. Eight were in the special C.P. Unit suffering from Cerebral Palsy, 7 of whom were severely affected.

By April 1960 treatment embraced the educationally sub-normal (E.S.N.) section of the school and also included 2 physically handicapped partially deaf boys from the George Palmer School's P.D.U. The number of treatments rose to 37 and is still increasing.

Cases under treatment

	Boys	*Girls*	*Total*
Cerebral palsy	8	9	17
Paresis after accident	1	–	1
Respiratory disorders	2	2	4
Poor posture	5	2	7
Post operation on foot deformities	3	–	3
Deformities after poliomyelitis	2	–	2
Undiagnosed encephalopathy	1	–	1
Dermatomyositis	1	–	1
Muscular dystrophy	1	–	1
	24	13	37

What is being done for the Cerebral Palsy Children

This affliction is due to disease or injury of the brain and can occur before, during or after birth. It is a dysfunction of the motor neurones or nerves, and therefore affects movement in varying degrees and severity according to the lesion, which may range from almost no disability at all to the most severely crippling. With effort or simple movement abnormal patterns are produced, because co-ordination of muscles, posture and balance are disturbed. Associated sensory defects, vision, hearing, speech, mental retardation or deficiency may also be present. Emotionally, intellectually and socially these children are usually backward in development. Concentration is easily deflected, yet they are capable of great effort and achievement with training, patience and encouragement.

They have a lifelong disability due to brain damage. Fully normal movement has never been and never will be experienced by most of them, such as N. the athetoid

child with squirming wormlike movement and involuntary grimaces; J. the ataxic little girl with pathological inco-ordination who walks with wide base and stamping or staggering gait; or B. the child with severe muscular rigidity, producing the typical crossed legs or scissor gait, adducted arms and clenched fists.

With treatment and encouragement all these children can be helped to better function and usefulness and lead happier lives.

Outline of Aims and Treatment

1. Get the child's confidence first.
2. Prevent deformities and contractures where possible.
3. Teach spatial awareness and co-ordination.
4. By modified proprioceptive facilitation techniques, release muscle spasm, so that after the child has experienced corrected patterns of movement, a voluntary effort may follow.
4. With continuous repetition try to condition new reflexes as near to normal as possible.
5. Make treatment interesting and rewarding enough for the child to continue the efforts both in the classroom and at home.
6. Get parents interested and by simple explanation and demonstration keep them keen on home maintenance. (Parents' response has been most gratifying).
7. Build up exercise tolerance, confidence and independence as far as possible, and finally, in addition to functional re-education, introduce games and activities with small groups.

The Poor Posture Patient

Children with poor posture are the second largest group who receive treatment. To date, all these children come from the E.S.N. section of the Avenue School. Typical is the drooping head, poking chin, round shoulders and shallow chest. There may be scoliosis, where the spine curves laterally to the right or left, or kyphosis where the back appears humped and rounded. In some cases the pelvic tilt is so altered as to produce lordosis, which is an exaggerated lumbar curve, or flat back, where the normal lumbar curve is altogether eliminated.

It is also possible to have a combination of any of these defects, one being compensatory to the other for body balance. Knees may be flexed and often foot complaints follow, such as flat feet, where the frontal arches have dropped, or Hallux valgus or rigidus where the big toes and joints are affected and lead to poor walking or slovenly gait. Muscles are usually atonic and the child appears listless and disinterested. There may be emotional or psychological disturbance in this type of child.

Individual treatment is given until a certain standard of proficiency is reached, then the child is able to join a small group where co-operation and competition is encouraged.

Outline of Aims and Treatment

1. Teach relaxation for release of muscle tension and introduce mobility and rhythm.
2. Prevent respiratory trouble by teaching nose blowing properly then correct use of breathing exercises.
3. With diaphragmatic and basal breathing discourage the shallow upper chest breather from using the accessory muscles of respiration in an unsatisfactory attempt at increasing ventilation.
4. Correct posture in standing, sitting and lying, the former two positions with use of a mirror. It is difficult to acquire a correct postural reflex when a poor one has been well established over a long period of time. An appeal to the child's pride helps when awareness of new stance will please and repetition will follow.
5. Prevent spinal and other deformities by graduated progressive exercises to increase muscle tone and strength, and thus create a natural support to good posture.

6. Stimulate the child mentally and physically by competitive exercise and games requiring quick response to sharp and varied commands, and to encourage each in turn to take the class and give commands, which will enable them to remember the exercises.

7. Get each child enthusiastic enough for home exercises, so that the acquired better posture, mobility and general stimulation may be lasting.

Children suffering from Respiratory Disorders

Within this grouping are the following:–

(a) Asthma
(b) Bronchiectasis
(c) Chronic bronchitis

(*a*) *The Asthmatic Child*

Very probably there may be a psychological explanation for the origin of this malady, as attacks can sometimes be linked up with an anxiety background. Tension and excess tone occur in the muscles of head, neck and shoulder girdle. The upper part of the chest presents a rigid prominence, whilst the lower thoracic rib cage is usually narrowed and poorly developed. Shortness of breath and wheeziness is typical and during an attack the child appears distressed and has difficulty in breathing and may change colour. After the attack there is usually an amount of frothy sputum produced.

(*b*) *The Child with Bronchiestasis*

This infective condition occurs when the air sacs of part of the lung or lungs, are grossly dilated and have lost their normal elasticity and recoil. Secretions may remain in the overstretched pockets, stagnate and become infected. A cough is present especially in the morning and at night, which is usually very productive and unpleasant. Inflation of the chest with deep breathing may show a flattening of the affected area with a slower air fill during inspiration.

It is important to clear the lungs of all secretions as far as possible to help prevent infection, encourage lung expansion and increase oxygen intake and vital capacity. General health of the child may be poor; posture is usually poor.

(*c*) *The Chronic Bronchitic*

Constant cough is present in the child who suffers from bronchitis. With this chronic disability the bronchi or larger tubes are affected and have lost their elasticity and recoil. Thick mucus formation leads to difficulty in both expiration and inspiration, and because of this, diminished oxygen intake occurs, with shortness of breath easily on exertion.

Circulatory and digestive disturbance may also feature in the picture.

Outline of Aims and Treatment for all Respiratory Conditions

1. Teach relaxation and release muscle tension.

2. With treatment improve ventilation and mobility of thorax, and teach awareness with local, general and diaphragmatic breathing.

3. Achieve breathing control after activity and exertion.

4. Increase exercise tolerance and build up good posture.

5. Where postural drainage is indicated, teach the child correct position for drainage and get parents to continue this at home.

6. Give demonstration to parents on percussion, if necessary, to loosen adherent secretions, and to encourage increase of chest expansion.

7. With the asthmatic child, teach positions of ease and control should an attack occur. With medical and physical treatment to give relief and make living more comfortable, the child's general health and confidence will begin to show improvement.

Poliomyelitis

There are 2 cases, both of several years standing, who sustained attacks of paralytic poliomyelitis.

R. a boy aged 12 years contracted polio at the age of 7 months. As a result he has a frail right leg which requires a full length walking caliper. The muscles in his back are weak and underdeveloped unilaterally, and abnormal curvature in the lumbar region is present, which may require surgery later on. His left leg is affected slightly. At present he is overwieght but gradually reducing.

M. age 11 years, a frail partially deaf boy suffered a severe polio attack when he was 3 years of age, which left him with considerable muscle wasting and weakness of the right arm, chest and back. Both legs were affected but remained functionally good. Rib and chest deformity followed, compensatory to an increasing scoliosis. A spinal brace to support and correct his back will shortly be ready, and about 18 months after this a spinal operation will be performed.

Outline of Aims and Treatment

1. Free any stiffened joints which may hamper movement.
2. Build up any available muscles in the affected areas, and develop and strengthen all normal existing muscles.
3. As far as possible adjust deformities by special unilateral as well as bilateral exercises.
4. Mobilise and increase chest movement and teach breathing exercises.
5. Correct posture and walking and develop kinesthetic sense, to activate co-ordination despite imbalance of muscle power.
6. Build up exercise tolerance and introduce games.
7. Appropriate electrical treatment for poor circulation or re-education of muscles available, if condition indicates suitability.

Operable Foot Deformities

Three boys received operations on their feet.

D. age 12 years, with pink disease received tendon transplant for pes cavus foot, where the foot drops into a deformed exaggerated high arch. Contractures occur under the arch whilst ligaments in front of the foot are overstretched.

P. age 10 years, a partially deaf boy after meningitis, received bilateral operation for mild pes cavus feet.

D.W. a diplegic spastic boy of 13 years had bilateral operation for hallux valgus.

All operations were successful and resulted in much improved walking, balance and activity.

Outline of Aims and Treatment

1. Manipulation if necessary and requested by surgeon.
2. Restore normal function as soon as possible.
3. Re-educate muscles with electrical stimulation and voluntary effort.
4. With progressive exercises increase mobility and activity.
5. Give simple home exercises.
6. Re-educate posture.
7. Final rehabilitation with games and sport.

Other Cases

G. a boy age 10 years was involved in a road accident when he was 3½ years of age which left him partially paralysed. His disability is not severe and he gets along very well with maintenance treatment.

P. a boy of 11 years who is an undiagnosed encephalopathy with severe spastic symptoms in legs and feet. He attends school afternoons daily and receives treatment a as for cerebral palsy.

R. a boy of 9 years suffering from muscular dystrophy and obesity now receives treatment at hospital. This boy is far too heavy for the singlehanded physiotherapist at school to lift out his wheelchair.

A. a boy age 10 years, diagnosed as dermatomyositis which has left all his joints contracted, and limited his movements. From time to time he has painful episodes and a dry eruption on the skin. He attends school in the afternoons as he is not a very robust boy. All possible is being done with physiotherapy to prevent the contractures from increasing. Recently there has been a little more mobility and improved walking after treatment. He is less apprehensive and now enjoys some games with a small group, within his limitations.

Facilities

One large room is allocated for Physiotherapy. Treatments have trebled in the past year, and as time goes on, more children are likely to be included.

Floor area for group therapy is limited as essential apparatus permenently occupies floor space, and groups cannot exceed more than 4 children at one time with safety.

Equipment and Apparatus

1 wall mirror
1 plinth
2 rubber mats
Fixed wall bars
1 walking machine
Parallel adjustable walking bars
Steps and slope with handrail
Static bicycle
2 sorbo pillows
4 plastic lampshades which replaced the glass ones.

Electrical Equipment

1 U.V.L. (Sun) Lamp
1 Infra Red Ray Lamp
1 Multitone Progressive Treatment Unit with variable pulses, which may be used for:–

(a) Stimulation of normal but weakened or wasted muscle where the nerve supply is intact, e.g. re-education of muscles or muscle groups.

(b) Stimulation of muscle tissue where the nerve supply is damaged but will recover later, e.g. to help prevent fibrosing of muscle tissue and disuse atrophy due to inactivity.

(c) Ionisation or the introduction of drugs into the skin by galvanism or direct current.

Advantage of physical therapy in a handicapped school is (a) very little or no loss of education time whilst receiving treatment (b) security for the child in familiar surroundings, with the same person administering treatment each time and (c) continuity between all who, in the school, have a part in the welfare and education of that child.

I would like to express sincere thanks to the staff of the Avenue School who in this first year have shown kindness and co-operation, and it is through their interest and consideration that it is now a happy and flourishing department in their midst.

THE SCHOOL DENTAL SERVICE

Mr. J. Campbell, L.D.S., R.C.S., reports:–

The shortage of Dental Officers entering the School Dental Service still prevails and, as long as it does so, it will be impossible to provide a service adequate to the requirements of the school population.

The staffing position here has again been depleted to one full-time officer, as the part-time officer left the service at the end of August. This accounts for the smaller amount of Inspection and Treatment done during the past year. This factor also tends to reduce the routine conservative work and increase the number of emergency cases. At the same time the number of casuals has not been excessive taking this into consideration.

Routine inspection was carried out in 25 Schools and 55.5% of the children were found to require treatment.

Entrant Infants inspected amounted to 709 of whom 411 required dental treatment. This gives a percentage of 57.9. The percentage of the numbers of children, between the ages of 5 and 15 years, who require treatment ranges between 50 and 65%. I have appended a table which gives the approximate percentage of children in these age groups requiring treatment. Fillings and extractions have dropped in comparison to the fewer number of sessions.

Oral Hygiene

The attendances in this section amounted to 1,962 children, of whom 1,202 required further dental treatment and 760 required a clean and polish only. Thirteen preschool children and pupils from Christ's Hospital, Bluecoat School, St. Joseph's Convent and Presentation College are included, also several cases from the Training Centre.

Dentures

Twenty-eight dentures were supplied and eight repairs were necessary.

Orthodontics

Thirty-two new cases were commenced during the year and 32 cases were carried forward from 1959. This made necessary the making of 34 appliances of various types. Repairs to appliances numbered 9.

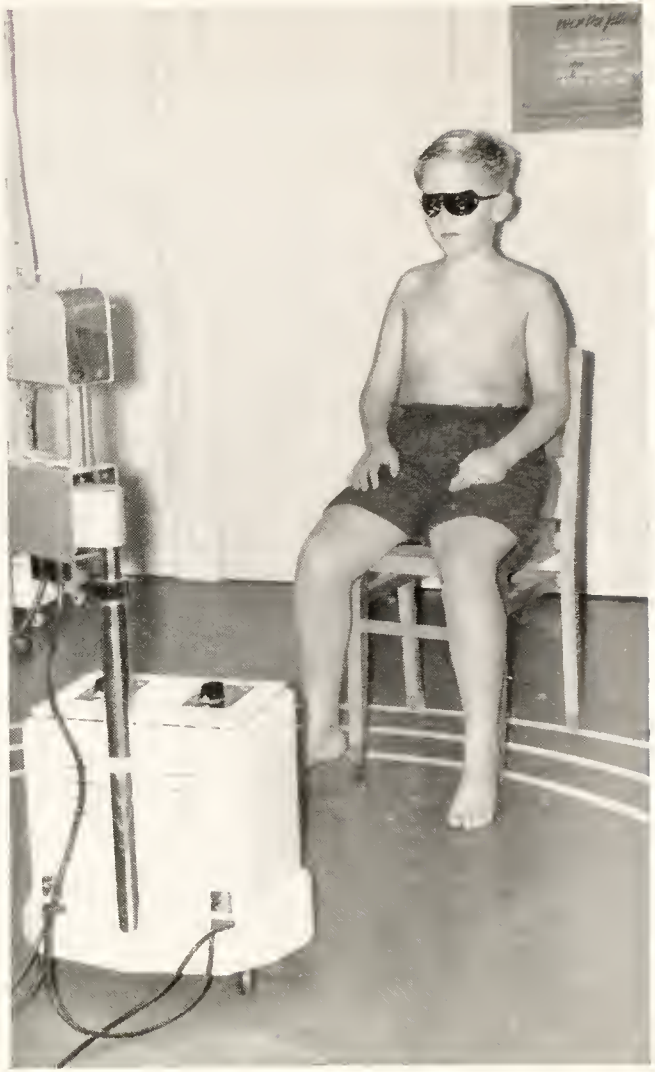
The following tables supply details of treatment:–

(1) Number of pupils inspected by the Authority's Dental Officer:–

(a) At Periodic Inspection	7,856
(b) As Specials	803
Total (1)	8,659
(2) Number found to require treatment	4,808
(3) Number offered treatment	3,742
(4) Number actually treated	2,506
(5) Number of attendances for treatment	6,113
(6) Half-days devoted to:	
(a) Periodic Inspection	49
(b) Treatment	667
Total (6)	716

SCHOOL DENTAL INSPECTIONS

ULTRA-VIOLET LIGHT THERAPY



(7) Fillings:	
(a) Permanent Teeth	3,439
(b) Temporary Teeth	390
Total (7)	3,829
(8) Number of Teeth filled:	
(a) Permanent Teeth	2,867
(b) Temporary Teeth	374
Total (8)	3,241
(9) Extractions:	
(a) Permanent Teeth	704
(b) Temporary Teeth	1,868
Total (9)	2,572
(10) Administration of General Anaesthetics	716
(11) Orthodontics:	
(a) Cases commenced during year	32
(b) Cases carried forward from previous year	32
(c) Cases completed during year	29
(d) Cases discontinued during year	16
(e) Pupils treated with appliances	32
(f) Removable appliances	19
(g) Fixed appliances	15
(h) Total attendances	352
(12) Number of pupils supplied with dentures	28
(13) Other Operations:	
(a) Permanent Teeth	615
(b) Temporary Teeth	668
Total (13)	1,283

This table gives details of treatment of Scholarship pupils attending non-council schools; for convenience the patients from the Training Centre have been included in this list:

	No. Treated	No. Attend-ances	No. Extract-tions	No. Fillings	No. Anaesthe-tics	No. Discharged
Christ's Hospital	4	18	1	13	1	4
Bluecoat School	2	6	2	7	2	2
St. Joseph's Convent	2	6	—	4	—	2
Presentation College	1	2	1	—	1	1
Training Centre	21	70	55	17	12	17

Finally, this table shows the numbers inspected between 5 and 15 years and the percentage requiring treatment.

Age Group	5	6	7	8	9	10	11	12	13	14	15
No. inspected	709	809	836	888	915	924	738	627	520	381	176
%requiring treatment	57.9	57.9	64.1	62.6	64.9	60.9	61.6	65.7	65.7	61.6	52.2

INFECTIOUS DISEASES

1. Tuberculosis in Schoolchildren

Twelve children who attend maintained schools were notified as cases of pulmonary tuberculosis in 1960. In addition, there was one notified case of tuberculous meningitis. There was no evidence that any of these infections had been acquired at school.

2. B.C.G. Vaccination

During the year 1,216 school children received B.C.G.
The results are shown below:

B.C.G. VACCINATIONS—1960

Year of Birth	No. selected	No. accepted	%	Absent	Skin tested	Pos.	Neg.	Abs.	% Pos.	Received B.C.G.
1945	128	117	91.4	21	107	10	94	3	9.6	94
1946	1,358	970	71.43	84	898	86	777	35	9.85	776
1947	530	384	72.45	9	375	24	346	5	6.48	346

We have continued to participate in the scheme under the directorship of Dr. K. Neville Irvine to assess the potency of batches of the British freeze-dried B.C.G. vaccine now in use. It has been usual to refer children showing a strongly positive result at the initial Heaf tuberculin test for chest radiography and one of the cases of tuberculosis in school children mentioned in the previous section was discovered in this way.

3. Ringworm of the Scalp

Two children of school age were treated for ringworm of the scalp; one of these was referred to hospital. In addition, 450 contacts were examined.

4. Pediculosis

The school nurses made 39,169 head inspections during the year and found evidence of pediculosis in 250 pupils. This incidence of infestation was 50 per cent greater than that found last year. Cleansing notices were issued in 6 cases.

5. Infectious Hepatitis

During the spring there was an outbreak of this disease amongst school children mainly in the Grovelands and Norcot areas. It seemed most probable that the infection was spread by case-to-case infection but, without expressing any opinion about the relationship of the infecting virus of infective hepatitis and that of homologous serum jaundice, it was thought advisable to arrange for a separate syringe for each injection at our immunisation clinics and this is now our universal practice. All the syringes used in our clinics are now sterilised centrally at the School Clinic, Queen's Road, in a small steam steriliser and they are subjected to a temperature of 126° C. for 30 minutes. The special investigation made into the efficiency of this sterilising process is described later in this report.

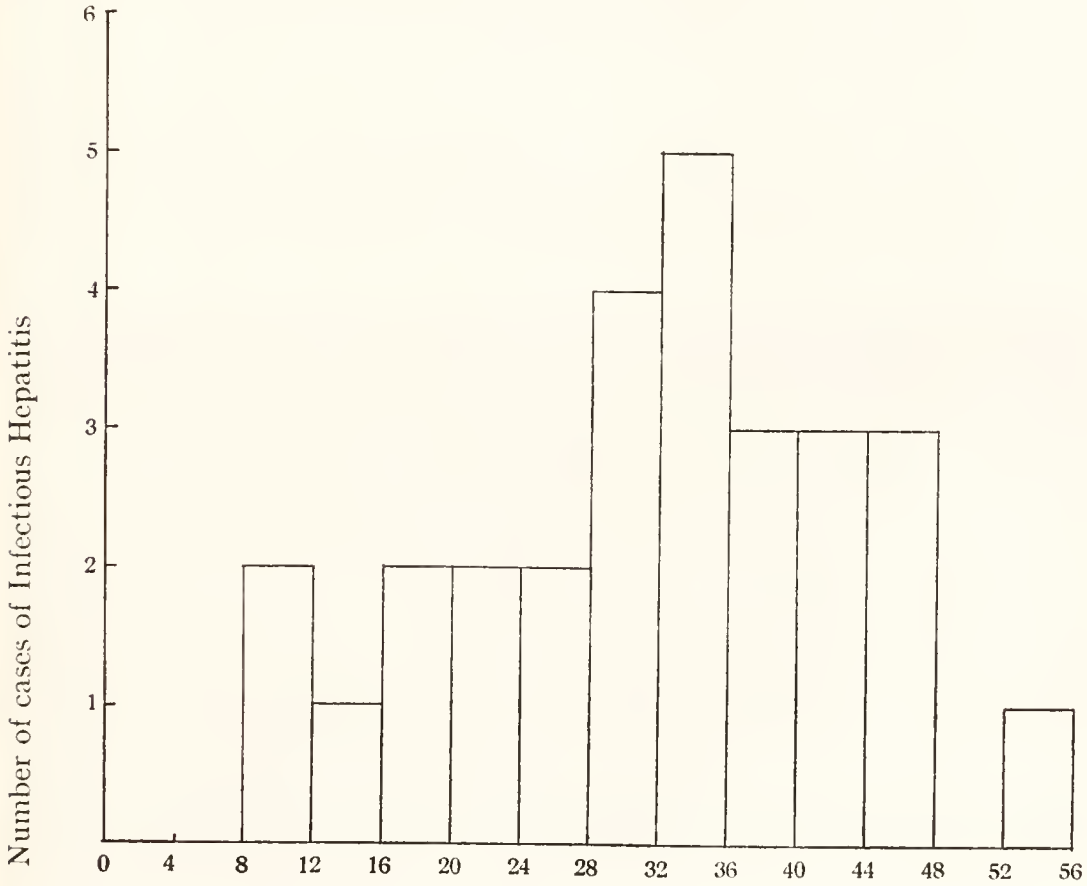
From the epidemiological viewpoint it was felt worthwhile to investigate the question of recent immunising injections in school children who contracted jaundice during this outbreak. Of 61 pupils known to have been affected at the time the investigation was made (April, 1960), 28 had had immunising injections since January 1st, 1959. Examination of the dates on which these children received their injections showed that none of them attended the same clinic on the same day.

The following table gives the frequency distribution for the period in weeks between their last immunising injection and the first day of absence from school because of jaundice. The histogram illustrates this distribution graphically.

Interval in weeks	0–4	5–8	9–12	13–16	17–20	21–24	25–28	29–32	33–36	37–40	41–44	45–48	49–52	53–56
Number of cases	0	0	2	1	2	2	2	4	5	3	3	3	0	1

(Usual incubation period of "Serum" hepatitis is believed to be 8–24 weeks.)

The conclusion reached was that in the present outbreak transmission at immunisation sessions seemed to be unlikely.



Number of weeks between last immunising injection and date of first absence from school because of "jaundice".

DEATHS IN SCHOOL CHILDREN

Five Reading children of school age died during the year, all of them were boys.

Two of the deaths were accidental; a boy of 6 died from multiple injuries received in a road accident and the other, a boy of 12, died from drowning.

Two other boys aged 5 and 10 respectively died as a result of pneumonia and the third boy, aged 16, died as a result of congenital heart disease.

SPECIAL CLINICS

1. Minor Ailments Clinics

One thousand five hundred and sixty-six children received treatment from the S.M.O.'s or school nurses at these clinics. The types of cases seen most frequently were cuts, bruises, skin diseases and minor eye troubles. Children requiring further treatment were referred to their family doctor or in some cases (for example fractures) to the Casualty Department at Battle Hospital. Where a medical officer attends a Minor Ailment Clinic regularly the clinic is often used for special examinations at the request of parents, teacher or nurse.

2. Remedial Exercises

Remedial exercises for such defects as bad posture and flat feet were supervised at Queen's Road and at Whitley Clinics for 31 pupils, 13 girls and 18 boys.

3. Ultra-Violet Light Therapy

This is now available at Queen's Road, Whitley and Tilehurst Clinics. It is most often recommended for general debility and catarrhal conditions and is sometimes used for skin disorders such as psoriasis. Twenty-four children, 11 boys and 13 girls, received an average of 90 minutes each. These children ranged in age from 2–12 years and the total number of attendances was 408.

4. Chiropody Clinic

Mrs. M. L. Abraham reports:–

A total of 86 children received chiropody treatment at Queen's Road Clinic during the year, the incidence of foot conditions receiving attention being approximately the same in boys and girls. This figure includes some children attending nursery schools, children in their last school year, and all intermediate ages.

The majority of cases, as in 1959, were those requiring treatment for verruca pedis.

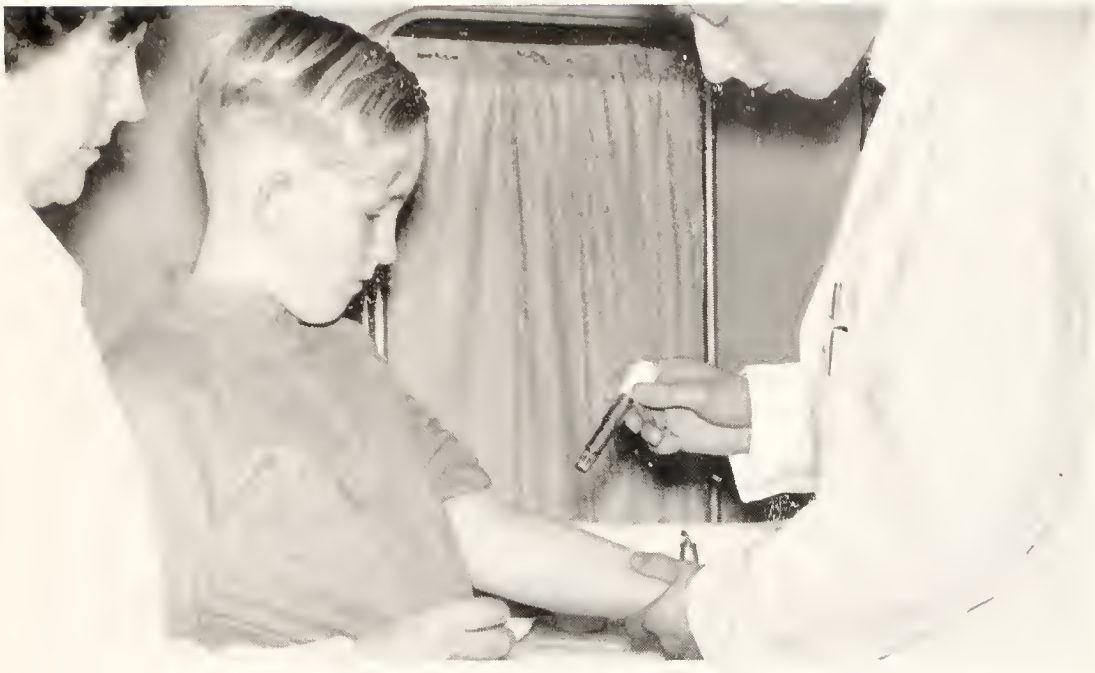
Six instances of damaged nails occurred and it appears that the tendency in some cases to cut the nails too often and too severely encourages the ingrowing nails.

Fewer cases of hallux valgus have been seen at the clinic during the past year; it seems these deformities are, in the main, caused by wearing "fashion shoes". A simple demonstration to convince these children is to place a piece of white card on the floor and with a pencil first outline the shoe and then the foot; the difference is so obvious that usually no comment is necessary. Although, in general, parents are becoming more aware of the necessity for a correct fit when trying shoes for children, many are uncertain what shape to insist on. Another point is that children around the age of twelve are growing so quickly the rapid replacement of shoes is expensive and consequently, to save, some shoes are still being worn when they should have been discarded.

A small number of callosities and corns have required attention, again bad fitting socks and footwear appear to be the main causes.

Where rashes have occurred, in nearly every case nylon socks have been worn recently and the condition has improved as soon as wool or cotton socks are reverted to.

B.C.G. VACCINATION - THE HEAF TEST



TREATMENT AT MINOR AILMENT CLINIC

5. Enuresis Alarm

It was mentioned in last year's report that the Enuresis Alarm apparatus for the treatment of persistent nocturnal enuresis had been loaned to the parents of selected school children. Of the 5 cases treated during 1959, 2 appeared at the time to be cured. All these cases have been followed up and, so far, neither of the 2 initially cured cases has relapsed. The other cases still have their symptoms.

Our criteria for the selection of cases have been strict and include the following:–

1. The child to be at least 8 years old.
2. Regular nocturnal enuresis for many years.
3. Organic cause for urinary symptoms excluded, preferably by a Paediatrician.
4. Family doctor agreeable to use of the alarm.
5. Preferably the child should sleep alone during the trial period. Some otherwise suitable cases have been unable to use the apparatus because the parents have been unable or unwilling to give them, at least for the duration of the trial, a room of their own or even a bed of their own.
6. The trial period is usually six weeks in the first place, to be extended or repeated at the discretion of the school medical officer concerned.

During 1960 eight other children have tried out the apparatus. In three cases the trial has been abandoned because the bell failed to waken the child, despite measures to amplify the sound as much as possible. Five cases seem to have been benefited considerably, so far.

We hope to obtain more equipment to enable us to extend this work in the near future.

HEALTH EDUCATION, COURSES AND MEETINGS

At regular intervals throughout the year meetings are held between the S.M.O.'s and the staff of the Paediatric Department of the hospital. Four such meetings took place during 1960 and the cases of 48 children of mutual interest were brought forward for discussion.

A one-day course for Health Visitors and other Public Health staff and selected teachers was held early in the year with the support of The Central Council for Health Education. The topic selected was "Problems of Early Maturity". The course included a general discussion under the chairmanship of the Medical Director, and a talk on "Technique of Group Discussion with Adolescents" by the Education Officer of the Central Council.

One S.M.O. attended the London course of instruction on mental deficiency and the ascertainment of E.S.N. children and the Senior Assistant M.O. attended a refresher course for senior school medical officers at Cambridge organised by the Society of Medical Officers of Health.

Miss Webber, Superintendent Health Visitor/School Nurse comments as follows on the parentcraft courses in secondary schools:–

Parentcraft Course in Secondary Schools

Close co-operation between the Health Visitor/School Nurses undertaking the teaching of this course and the teachers of Housecraft in the schools has been maintained.

The course has continued on similar lines as in previous years, with special reference to the particular needs of each individual school.

The main difficulty seems to be the ever increasing demand on the Health Visitor/School Nurse's time and allowing her sufficient time to deal with all the requests for a course from the schools.

One hundred and twelve classes have been given by five Health Visitor/School Nurses throughout the year.

SCHOOL MEALS SERVICE

The following report has been received from Mrs. P. E. Cook, the School Meals Organiser:–

During the year 1960 the percentage of children taking dinners increased to 50.26% of those present. This is the highest percentage up to the present time. It is interesting that although the number of children present in the Primary Schools was less than the previous year, the number of those taking dinners showed an increase. The total number of meals served per day in October, 1960 was 10,400.

A new canteen kitchen was provided at Southlands School which opened on April 26th, 1960. The demand for meals at this school has been higher than was anticipated. Octagonal tables to seat eight persons have been provided, and look most attractive. The meal is served to the children from trolleys in order to prevent as much movement as possible.

Katesgrove Secondary School servery was closed when the children who used to have meals there transferred to George Palmer School Canteen. The improved conditions were appreciated.

Dining conditions at Kendrick School were much improved by a new extension to the building, which allows more space for the girls.

The Committee's scheme for training staff continues to be invaluable. The first two Cadet Cooks passed their City and Guilds of London Institute examination No. 150 at the end of their two years training. They have both been appointed assistant cooks, and are now attending classes at the Technical College in order to take their City and Guilds of London Institute examination No. 151. They attend this class under the Committee's scheme for all School Meals Staff.

The Ministry of Education Inspector made a nutritional check on meals provided at various canteens during a four weekly period in the summer, and was generally satisfied with the results. She was particularly pleased with the amount of protein provided from the portion of meat allowed. This is the result of the type and cuts of meat purchased.

As usual a One Day Conference was arranged at Caversham School Meals Kitchen for members of the School Meals Service. A lecture on Civil Defence in relation to catering was most interesting and informative. A Cookery demonstration in the afternoon was very much enjoyed. Two conferences arranged by the Institutional Management Association for School Meals Personnel, on "Staff Training and Modern Trends and Developments and their effect on the School Meals Service" were attended by Supervisor and the Organiser.

It is encouraging to find that there is a great improvement in the laying of tables, and that in the majority of schools it is felt possible to have glasses, and water jugs, as well as cruets on the tables. It is realised that more supervision is necessary at first, but after a time it is accepted as normal, and few accidents happen where behaviour is good. Where children assist by laying tables between sittings there has been a great improvement in the way the cutlery, etc., is handled, and in the finished result. The training which is given by the teachers is invaluable.

PHYSICAL EDUCATION

The Organisers of Physical Education report:–

Partly because of the difficulties that have arisen in the past to maintain the staff of specialist teachers of physical education at full strength, and partly because of the present-day enthusiasm for games and swimming, there has been a general tendency throughout the year to foster these latter activities. The shortage of specialist teachers affects, in particular, the work in the gymnasia where activities with apparatus must necessarily be taught and supervised by teachers with the required qualifications. Much of the training on the playing fields and swimming baths, however, can be

carried out by the general class teachers and, therefore, it seemed advisable to concentrate particularly on assisting these teachers with this work until such time as specialists became available.

This is not to say, however, that there was any decline in interest or effort so far as indoor work was concerned. New apparatus was introduced to keep the work in step with modern developments and teachers were encouraged to attend courses and to observe the work of their colleagues in other schools. Climbing apparatus was installed at Norcot School and work began at the School Clinic to improve the gymnasium there for the use of St. John's School. It is hoped that further improvements will be possible at Geoffrey Field Infants' School, Wilson Junior School, The Hill School and St. Mary's School during the current financial year.

Many more children took part in games in general, no doubt due to the improved facilities and untiring efforts of their teachers both during organised games periods and out of school hours. Training courses were conducted for these teachers and, in this connection, 23 men attended a residential course in Association football at Bisham Abbey during the Autumn term. Girls' activities were stimulated by tennis tournaments and rallies for hockey, shinty, netball and rounders. The opening of the six hard tennis courts at the Grove provided admirable facilities for the schools in that area and, in consequence, it was pleasing to note the marked improvement in the standard of play in these schools. Work began on the hard courts at the George Palmer Playing Field and it is hoped that they will be available for play in Autumn, 1960.

As a result of this concentration on games, during the winter months most boys had the opportunity to play both codes of football and all girls in secondary schools played both netball and hockey during their 1st and 2nd years while the older girls concentrated on the game they preferred. During the summer months, athletics, tennis and cricket were the major activities on the games fields. In addition, the Junior school children played rounders and padder tennis.

With this comprehensive programme it is hoped that, on leaving school, children are better fitted and able to pursue some sporting recreational activity. There is a great problem here, however, as there are not many clubs suitable or willing to cater for the 15 year old, many of whom are lost to games as a result of this situation.

During the year approval was given by the Committee to hold an experimental course for boys during the summer vacation. It was intended that they would live under canvas for the duration of their stay and that coaching would be concentrated on leadership and the less usual activities such as canoeing and expedition training. The response from the schools was most encouraging and 50 boys were enrolled.

Swimming

As already mentioned in this Report, this subject is ever-increasing in popularity and demand. The recorded number of attendances at the baths, during organised lessons, was 65,500 during the year, an increase of 40% above the highest total previously reached in 1957. Needless to say, the inadequate facilities at our disposal were utilised to capacity (and beyond) but in spite of this, a large number of children were unable to be included in classes for schools.

Two courses of instruction were held for teachers; both at Reading School. The attendance figures at these courses were over 60 on all occasions; a further indication of the interest being taken in schools. Again, the standards of performance have so risen in junior schools that it was necessary to hold the Annual Swimming Gala in two sections this year—a junior gala in the afternoon and the secondary gala in the evening. This proved to be a very satisfactory innovation.

Nor was this increased interest and enthusiasm confined to schools. Parents were equally alive to the advantages to be gained and over 300 children were enrolled in the beginners' classes held at Ashmead School in the evenings and during holiday periods.

We are exceedingly grateful to the schools who have made such splendid efforts to provide their own swimming facilities. During the year, baths were opened at

Ashmead School and Southcote School while a contract was placed for another at Geoffrey Field Junior School. We are equally appreciative of the support and assistance of the Committee to bring these schemes to fruition.

In conclusion, we wish to acknowledge the assistance of all who have helped us in our work during the year.

ROAD ACCIDENTS

We are indebted to Mr. A. Iveson, the Chief Constable, for the information on which the following remarks are based:–

During the year there was a slight increase of four casualties compared with those of the previous year. There was regrettably one fatal accident. A boy of six stepped off the grass verge into the roadway as if to run across the road and was struck by an oncoming car. It is usual for boys to outnumber girl casualties and in the year 1960 it will be seen that the proportion is nearly three to one.

Again child cyclist accidents exceed those in the "pedestrian" group, stressing the added danger to which the cyclist is exposed and the need for continued positive instruction in the art of safe cycling. In fact the number of accidents of child cyclists during the year was 10 more than in 1959.

Analysis of Road Accidents for the year 1960,
involving Children of School Age.

Month	Boys	Girls	Cyclists	Pedestrians	Passengers	Injury			Total
						Slight	Serious	Fatal	
January	2	1	2	1	–	3	–	–	3
February	6	1	3	2	2	6	1	–	7
March	4	3	4	2	1	6	–	1	7
April	3	4	3	4	–	7	–	–	7
May	9	2	8	3	–	10	1	–	11
June	4	4	8	–	–	8	–	–	8
July	8	1	7	2	–	9	–	–	9
August	5	–	2	3	–	4	1	–	5
September	6	2	4	4	–	5	3	–	8
October	7	4	5	6	–	8	3	–	11
November	8	4	7	5	–	7	5	–	12
December	4	1	1	4	–	5	–	–	5
Totals	66	27	54	36	3	78	14	1	93

SPECIAL INVESTIGATIONS

1. An Investigation into the Efficiency of Steam Sterilisation Procedures

In view of the recent interest shown both nationally and locally in the proper functioning of steam sterilisers, it was considered prudent to examine critically the structure, function and operation of the 3.5 cu. ft. gas operated steriliser in the Queen's Road School Clinic. This steriliser is used for the autoclaving of syringes, utensils and swabs used in all the immunisation clinics of the authority.

Bacteriological tests made with the helpful collaboration of Dr. N. Wood of the P.H.L.S. using the spores of *Bacillus Stearothermophilus* left some doubt as to the full efficiency of the sterilisation process, and structurally the steriliser did not appear to fulfil the criteria considered desirable by authorities on the subject.

Modifications were made including the fitting of a thermometer in the chamber drain so that the sterilisation cycle could be properly controlled by temperature readings, and the conversion of the steriliser to "gravity displacement" in order to ensure adequate air evacuation which is a necessary preliminary to sterilisation by steam.

After this an investigation was made with the help of the Electrical Research Association, Shinfield, which confirmed, when using a thermocouple, that an appropriate temperature was actually maintained throughout the period of sterilisation, and that the thermometer could be relied upon in the control of the sterilisation cycle.

In addition, a number of measures were taken to reduce the risks of recontamination of drum contents after sterilisation. These included regular inspection of all dressing drums and the replacement of damaged ones, and the provision of drum covers, "kitbags", to prevent contamination by dust.

The supervision and control of sterilisation was put on a sound basis with arrangements for the keeping of proper records of all loads sterilised and for a monthly bacteriological test of efficiency. It is reassuring to note that the results of all tests made since the steriliser was modified have been entirely satisfactory.

A more detailed account of this investigation and an explanation of the principles involved has been published elsewhere (Lockett, H. I., *The Medical Officer*, 1960, 103 p. 163.)

2. An Investigation into the Effectiveness of Slow and Quick Cooking Methods on Artificially Infected Meat, and also into the Incidence of Heat-Resistant Clostridium Welchii in some Raw Meat Supplies

At the end of 1959 we were asked by the School Meals Service to give our advice on the advisability of roasting joints overnight. It was pointed out that if this practice could be introduced it would enable kitchen staff to have the joints cooked and carved ready for distribution from about 10.30 a.m. onwards. In support of this request it was stated that some supervisors of school meals had been stewing meat overnight for some time and that, as far as could be seen, no trouble had resulted from it.

Before giving an opinion the Medical Officer of Health decided that it would be wise to undertake some experiments on meat artificially infected with three of the main types of food poisoning organisms in order to compare the relative effectiveness of overnight roasting and orthodox roasting upon these particular organisms. Accordingly, joints of meat were heavily infected with salmonella typhi-murium, staphylococcus pyogenes, and heat-resistant clostridium welchii, and roasted in one of the school kitchen ovens. At the same time the temperature of the meat was recorded during the experiments by means of a multipoint temperature recorder which was kindly supplied and assembled by the Electric Research Association's Field Station at Shinfield.

The overnight roasting and orthodox roasting methods appeared to be equally effective in destroying the salmonella typhi-murium and staphylococcus pyogenes. However, the results of the experiments did suggest that more of the heat-resistant clostridium welchii survived the overnight roasting than in the orthodox roasting.

Some artificially infected meat was also stewed overnight on three different occasions. The method seemed to be effective in destroying the salmonella and staphylococci, but the results in regard to the clostridium welchii were indecisive since they appeared to be killed on two of the three occasions but certainly survived on the other. Therefore, heat-resistant clostridium welchii appeared to be the only food poisoning organisms likely to survive the overnight methods of cooking which we tested.

In order to obtain an idea of the amount of raw meat supplied to the school kitchens which was likely to be infected with clostridium welchii, we took a large number of samples from carcases at the butchers' establishments supplying the meat during February, March and April, 1960. Samples from 28% of the carcases were found to contain clostridium welchii. Experience suggests, however, that if meat is well cooked and eaten immediately, then the danger of clostridium welchii food poisoning is extremely remote. Experimental evidence suggests that large number of actively multiplying organisms are necessary to produce symptoms of clostridium welchii food poisoning. The apparently heat-resistant spores, if small in number and ingested before they have a chance to multiply, will not cause symptoms.

In the light of past experience, and as a result of our experiments, we advised that meat should always be roasted by the orthodox method and that it should preferably be stewed by a "quick" method as well. A more detailed account of these investigations has appeared elsewhere (Sylvester, P. K. and Green, J., *The Medical Officer*, 1961, 105 p. 231.), but we should like to record here our thanks for the ready help and co-operation which we received from Dr. N. Wood and his staff at the Public Health Laboratory.

STATISTICAL DATA

PART I

Medical Inspection of pupils attending maintained and assisted Primary and Secondary Schools (including Nursery and Special Schools).

(*A*) Periodic Medical Inspections

Age Groups Inspected (By year of birth)	No. of Pupils Inspected	Physical Condition of Pupils Inspected			
		SATISFACTORY		UNSATISFACTORY	
		No.	% of Col. 2	No.	% of Col. 2
(1)	(2)	(3)	(4)	(5)	(6)
1956 and later	273	273	100	—	—
1955	776	775	99.87	1	.13
1954	885	884	99.89	1	.11
1953	105	105	100	—	—
1952	440	439	99.77	1	.23
1951	130	130	100	—	—
1950	95	95	100	—	—
1949	329	328	99.7	1	.3
1948	1,358	1,356	99.85	2	.15
1947	346	346	100	—	—
1946	506	506	100	—	—
1945 and earlier	1216	1216	100	—	—
Total	6,459	6,453	99.9	6	.1

(*B*) Pupils found to require treatment at Periodic Medical Inspections

Age Groups Inspected (By year of birth)	For defective vision (excluding squint)	For any of the other conditions recorded in Part II	Total individual pupils
1956 and later	3	33	34
1955	17	106	106
1954	24	139	140
1953	2	16	17
1952	16	34	44
1951	2	14	14
1950	4	10	11
1949	25	40	52
1948	70	100	158
1947	31	35	63
1946	36	38	69
1945 and earlier	96	84	175
Total	326	649	883

(*C*) Other Inspections

Number of Special Inspections	154
Number of Re-inspections	1,526
Total	1,680

(*D*) Infestation with Vermin

(*a*)	Total number of individual examinations of pupils in schools by school nurses or other authorised persons	39,169
(*b*)	Total number of individual pupils found to be infested	250
(*c*)	Number of individual pupils in respect of whom cleansing notices were issued (Section 54 (2) Education Act, 1944)	6
(*d*)	Number of individual pupils in respect of whom cleansing orders were issued (Section 54 (3) Education Act, 1944)	—

PART II

Defects found by Medical Inspection during the year.

(*A*) Periodic Inspections

Defect or Disease	PERIODIC INSPECTIONS							
	Entrants		Leavers		Others		Total	
	(T)	(O)	(T)	(O)	(T)	(O)	(T)	(O)
Skin	21	14	33	15	43	19	97	48
Eyes—*a*. Vision	46	76	115	62	165	111	326	249
b. Squint	26	18	5	2	32	24	63	44
c. Other	3	1	3	3	10	15	16	19
Ears—*a*. Hearing	27	52	—	8	14	34	41	94
b. Otitis Media	8	38	3	6	5	26	16	70
c. Other	3	8	2	4	2	4	7	16
Nose and Throat	66	99	11	4	41	53	118	156
Speech...	31	17	2	2	23	15	56	34
Lymphatic Glands	5	7	—	—	—	3	5	10
Heart	1	16	—	9	2	19	3	44
Lungs	9	49	1	13	10	52	20	114
Developmental—*a*. Hernia... ...	2	4	—	5	3	4	5	13
b. Other	1	15	6	11	8	45	15	71
Orthopaedic—*a*. Posture	4	5	4	4	18	8	26	17
b. Feet	27	17	15	9	38	18	80	44
c. Other	8	14	10	16	23	33	41	63
Nervous System—*a*. Epilepsy ...	1	1	2	1	8	6	11	8
b. Other... ...	—	2	2	2	3	9	5	13
Psychological—*a*. Development ...	3	20	—	1	5	158	8	179
b. Stability ...	1	28	3	1	5	34	9	63
Abdomen	1	5	—	1	—	2	1	8
Other	2	3	2	1	2	8	6	12

(T) = Treatment (O) = Observation

(*B*) Special Inspections

Defect or Disease	SPECIAL INSPECTIONS	
	Pupils requiring Treatment	Pupils requiring Observation
Skin	—	—
Eyes—*a*. Vision	2	6
b. Squint	—	2
c. Other	—	—
Ears—*a*. Hearing	2	3
b. Otitis Media	1	2
c. Other	—	1
Nose and Throat	2	3
Speech	—	1
Lymphatic Glands	—	—
Heart	—	1
Lungs	—	2
Developmental—*a*. Hernia...	—	1
b. Other	—	2
Orthopaedic—*a*. Posture	—	—
b. Feet	4	2
c. Other	2	2
Nervous System—*a*. Epilepsy	—	—
b. Other	1	—
Psychological—*a*. Development ...	1	—
b. Stability	4	2
Abdomen	—	1
Other	—	—

PART III

Treatment of pupils attending maintained and assisted Primary and Secondary Schools (including Nursery and Special Schools)

(*A*) Eye Diseases, Defective Vision and Squint

	Number of cases known to have been dealt with
External and other, excluding errors of refraction and squint	85
Errors of refraction (including squint)	284
Total	369
Number of pupils for whom spectacles were prescribed ...	446

(*B*) Diseases and Defects of Ear, Nose and Throat

	Number of cases known to have been dealt with
Received operative treatment:—	
(*a*) for diseases of the ear	14
(*b*) for adenoids and chronic tonsillitis	289
(*c*) for other nose and throat conditions	16
Received other forms of treatment	—
Total	319
Total number of pupils in schools who are known to have been provided with hearing aids :-	
(*a*) In 1960	12
(*b*) In previous years	50

(*C*) Orthopaedic and Postural Defects

	Number of cases known to have been treated
(*a*) Pupils treated at clinics or out-patients departments ...	31
(*b*) Pupils treated at school for postural defects	—
Total	31

(*D*) Diseases of the Skin

	Number of cases known to have been treated
Ringworm—(*a*) Scalp	2
(*b*) Body	17
Scabies	—
Impetigo	45
Other skin diseases	48
Total	112

(*E*) Child Guidance Treatment

	Number of cases known to have been treated
Pupils treated at Child Guidance Clinics	169

(*F*) Speech Therapy

	Number of cases known to have been treated
Pupils treated by speech therapists	254

(*G*) Other Treatment Given

	Number of cases known to have been treated
(*a*) Pupils with minor ailments	1,566
(*b*) Pupils who received convalescent treatment under School Health Service arrangements	4
(*c*) Pupils who received B.C.G. vaccination	1,207
(*d*) Pupils who received U.V.L. therapy	24
Total	2,801

Cases of Infectious Disease in School and Pre-School Children for the year 1960

Disease	At All Ages	Under 1 year	1 and under 3 years	3 and under 5 years	5 and under 10 years	10 and under 15 years
Scarlet Fever...	65	–	7	14	26	18
Whooping Cough	170	19	37	33	73	8
Measles	19	2	9	3	2	3
Acute Pneumonia (Primary or Influenzal) ...	16	4	3	2	6	1
Acute Poliomyelitis (Paralytic) ...	–	–	–	–	–	–
Acute Poliomyelitis (Non-Paralytic)	–	–	–	–	–	–
Diphtheria	–	–	–	–	–	–
Paratyphoid	1	–	–	–	–	1
Enteric or Typhoid Fever (excluding Paratyphoid) ...	–	–	–	–	–	
Food Poisoning	–	–	–	–	–	–
Erysipelas	–	–	–	–	–	–
Dysentry	13	–	1	2	6	4
Meningococcal Infection	1	1	–	–	–	–
Acute Encephelitis (Infective) ...	–	–	–	–	–	–
Acute Encephelitis (Post-Infectious)	1	–	–	–	1	–
	286	26	57	54	114	35

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